

REMARKS/ARGUMENTS

The rejections presented in the Office action dated December 29, 2004 have been considered. Claims 1-4 have been cancelled and new claims 5- 16 have been added and are pending in the application. Reconsideration and allowance of the application is respectfully requested.

Claims 1-4 stand rejected under 35 U.S.C. §112, second paragraph.

Claims 1-4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,569,062 to *Dellande et al.* in view of U.S. Patent No. 6,064,705 to *Zalud et al.*

Applicant respectfully traverses all of the Section 103(a) rejections, each of which relies upon the '062 reference as a primary reference, because the Office Action failed to establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met, as indicated in the M.P.E.P. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. In this instance, the Office Action failed to meet all of the criteria for establishing such a Section 103(a) rejection, as discussed below.

Applicant submits that the cited portions of the references fail to teach or suggest all of the claimed limitations of the present invention. For example, the Office Action has incorrectly cited FIG. 2 of the '062 reference as teaching subject matter including "the user data frame being preceded by a synchronization data frame and a carrier identification data frame." This citation is incorrect because FIG. 2 and the corresponding discussion in the specification of the '062 reference do not mention any of the user, synchronization or carrier identification data frames. Furthermore, it appears that FIG. 2 is directed to the synchronous transmission of subsequent bit words, such as "11111111" or "10101010." *See, e.g.*, column 3, lines 16-33. It does not appear that these bit words are preceded by synchronization and carrier identification data frames and, further, appears that the subsequent communication of

the example data would teach away from such an approach (*i.e.*, such that additional data frames are not present between the words).

The Office Action also failed to show how the abstract and FIGs. 5 and 7 of the '062 reference teach or suggest the asserted limitations directed to data frames coded with an identical number of 0 and 1 bits, including the start and stop bits. The Abstract makes no mention of an identical number of 0 and 1 bits and explicitly indicates that any stop and start bits are stripped from the data "characterized by beginning and ending with synchronizing idle codes." Review of FIG. 7 clearly shows examples where an unequal number of 0 and 1 bits are transmitted. The discussion of FIG. 5 (*see, e.g.*, column 4, lines 22-69) does not discuss an identical number of 0 and 1 bits. Column 6, line 47 through column 7, line 22 discusses examples of an unequal number of 0 and 1 bits being transmitted in connection with FIG. 7. In this regard, the '062 reference does not, as suggested in the Office Action, teach or suggest limitations directed towards an identical number of 0 and 1 bits and/or data frames having stop and start bits.

The Office Action further failed to cite portions of the '062 reference that correspond to limitations directed to coding a carrier identification using a transmission bit rate or coding a synchronization data frame using half a transmission bit rate. As discussed above, the Office Action has failed to show teaching or suggestion for use of a carrier identification frame or a synchronization data frame; in this regard, it is unclear as to how the '062 reference would provide further teachings relative to these missing limitations. Nonetheless, Applicant has reviewed the cited portions of the '062 reference (column 7, lines 1-20 and 55-67) and cannot ascertain any such teaching or coding using the transmission bit rate or half the transmission bit rate. Further, it appears that the '062 reference teaches the use of an input data rate that is higher than a predetermined transmission rate (*see, e.g.*, column 7, lines 64-66), thus teaching away from the claimed approaches.

The Office Action further failed to show how the asserted Manchester encoding approach of the secondary '705 reference teaches or suggests claimed limitations directed to coding user data in the context of the presently claimed invention. Specifically, while discussing a Manchester encoding example, the '705 reference does not appear to teach or suggest an application of Manchester encoding that would enable the encoding of user data

as claimed in the present invention. Further, the Examiner has not shown how the Manchester encoding approach of the '705 reference would be combined with the primary '062 reference in a manner that would teach or suggest a transmission approach involving Manchester encoded user data preceded by synchronization and carrier data frames.

Regarding the dependent claims, the only portion of the '705 reference (column 7, lines 43-50) cited in connection with the rejections makes no mention of the teaching as asserted in the Office Action. Regarding claim 2, this cited portion of the '705 reference does not discuss coding user data in two half bytes comprising four Manchester-coded bits, with each half byte being enclosed by start and stop bits. Further, this same cited portion of the '705 reference does not mention hexadecimal code (*e.g.*, as relevant to claim 3), or the user of a UART (*e.g.*, as relevant to claim 4).

In view of the above-discussed absence of various claimed limitations in the asserted combination of references, the Section 103(a) rejection fails to meet the requirement that the cited references teach or suggest all of the claimed limitations.

Applicant further submits that the asserted modification of the '062 reference would render the reference unsatisfactory for its intended purpose. Relevant case law indicates that, where an asserted modification of a primary reference would render that reference unsatisfactory for its intended purpose, there is no motivation to make the modification (*see, e.g., In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984)).

In this instance, the asserted modification of the '062 reference with an asynchronous approach undermines the purpose of the '062 reference, which is directed to the transfer of synchronous data. Modifying the '062 reference to include stop and start bits also undermines its purpose, directed to the removal of stop and start bits and the corresponding use of synchronization idle codes. The Abstract and discussion corresponding to cited Figures 5 and 7 discuss these purposes of the '062 reference. For example, the Abstract refers to a synchronous data transfer approach involving the removal of any stop and start bits and the use of synchronization idle codes relative to the beginning and end of data transfer (*i.e.*, as would otherwise be relevant to start and stop bits). Terminals 34 and 35 of FIG. 5 employ synchronous communications as discussed at column 4, lines 22-69. In addition, FIG. 7 represents synchronous data output used with terminals 34 and 35. The Office Action's

proposed modification of the '062 reference would replace this synchronous data transfer with an asynchronous data transfer and, specifically in the context of the '705 reference, with a Manchester encoding technique. The Office Action's proposed modification would also render the synchronization idle codes unnecessary when start and stop bits are implemented. In this regard, the proposed modification of the '062 reference would modify the reference in a manner that is contrary to its purpose and is therefore unmotivated.

Applicant further submits that the Office Action failed to cite any evidence of motivation found in the prior art for doubling the bandwidth of the '062 reference. Relevant case law indicates that, without such evidence, the Section 103(a) rejection should be removed (*see, e.g., In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999)). In this instance, the Office Action makes brief reference to a well-known Manchester encoding approach as cited in the '705 reference, but fails to show how such an approach involving the coding of both a message packet and clock data would be implemented with the primary '062 reference. In this regard, the Office Action has failed to show how one of skill in the art would be motivated to modify the '062 reference to arrive at such an approach.

In view of the above, the Office Action has failed to establish a *prima facie* Section 103 rejection, in the context of any of the three basic criteria discussed above. Therefore, Applicant submits that the Section 103 rejections are improper and should be removed.

Notwithstanding the above, claims 1-4 have been cancelled. To the extent that certain limitations in new claims 5-16 are similar to those present in cancelled claims 1-4, Applicant submits that any rejection of these new claims using the rationale provided in connection with the rejection of claims 1-4 would be inappropriate. Specifically, Applicant submits that new claims 5-16 are patentable over the asserted combination of the '705 reference with the '062 reference in view of the above discussion.

Furthermore, the above discussion presented in connection with the cited references merely sets forth reasons as to why the rationale presented in the Office Action fails to align and correspond to the invention as claimed in cancelled claims 1-4. No amendments were made to the claims with respect to the cited references and it is believed that, after a careful review of the cited references, no arguments should be required to explain

why the asserted combination of references is significantly different from the claimed invention. New claims 5-1 merely manifest Applicant's "long-accepted right to press alternative claims covering different aspects of ... [Applicant's disclosed] invention." *Amgen, Inc. v. Hoechst Marion Roussel*, 126 F. Supp.2d 69 (D. Mass. 2001). Applicant respectfully submits that, by way of this Office Action Response, there is no intention to narrow, nor has the Applicant narrowed, the breadth of the claims as originally filed through the explanatory comments provided herein.

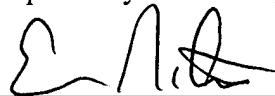
CONCLUSION

The Applicants respectfully submit that the pending claims are patentable over the cited prior art of record, and that the application is in condition for allowance. If the Examiner believes it necessary or otherwise helpful, the undersigned attorney of record may be contacted at 651-686-6633 to discuss any issues related to this case.

Respectfully submitted,

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